Warm Up - Period 3:

$$\left(\frac{4x^{-2}y^{4}z^{-5}}{2x^{3}y^{-7}z^{2}}\right)^{-3}$$

$$\left(\frac{2y^{4}y^{7}}{x^{2}x^{3}z^{5}z^{2}}\right)^{-3}$$

$$\left(\frac{2y^{11}}{x^{5}z^{7}}\right)^{-3}$$

$$\frac{2^{-3}y^{-33}}{x^{-15}z^{-21}}$$

$$\frac{x^{15}z^{21}}{2^{3}y^{33}} = \frac{x^{15}z^{21}}{8y^{33}}$$

⑤ $\left(\frac{-3a^{-5}b^{2}}{a^{4}b^{-5}}\right)^{-2}$

$\frac{(-3)^{-2}a^{10}b^{-4}}{a^{-8}b^{10}} = \frac{a^{10}a^{8}}{(-3)^{2}b^{4}b^{10}} = \frac{a^{18}}{9b^{14}}$

Algebraic Expressions:

Translate to an Algebraic Expression:

① 6 more than (add) a number.

$x + 6$

② 12 fewer than (subtract) a number.

$n - 12$

③ the product of (multiply) 12 and the sum of 3 and a number.

$12(n + 3)$ or $12 \cdot (n+3)$

Write an Algebraic Expression that models each situation:

④ Tommy has $640 and is depositing $55 a week.

$640 + 55w$

⑤ There are 20 gallons of gas in your tank and you use 3gallons per day.

$20 - 3g$

Evaluate each expression for the given values:

⑥ $-2a + 6b - 4a - 3b$; $a = -2$ $b = 4$

$-2(-2) + 6(4) - 4(-2) - 3(4)$

$4 + 24 + 8 - 12 = 24$

⑦ $y(4+x) + y^2$; $x = 7$ $y = -3$

$-3(4+7) + (-3)^2$

$-3(11) + 9$

$-33 + 9 = -24$

Solve for x:

(8) $-27 + 6x = 3(x-3)$

⑨ $5(x+4)+3x=-6(2x+10)$

Sometimes, Always, or Never?

⑩ $11 + 3x - 7 = 6x + 5 - 3x$

(11) $6x + 5 - 2x = 4 + 4x + 1$